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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,655	07/02/2003	Masanori Asakura	81710.0254	7235

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EXAMINER
VO, QUANG N

ART UNIT	PAPER NUMBER
2625	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/613,655	ASAKURA, MASANORI
	Examiner	Art Unit
	Quang N. Vo	2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 July 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/2/03*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 12-14 are rejected under 35 U.S.C. 102(e) as being anticipated by

Ishii (US Patent 6847469).

With regard to claim 1, Ishii discloses an image processing device comprising: an

isolated point detecting unit that detects isolated points from image data (column 2,

lines 26-28; column 3, lines 12-17; column 5, lines 34-37); a counting unit that counts

the isolated points detected by the isolated point detecting unit (column 5, lines 37-41);

and an isolated point eliminating unit (figure 2, isolated point removing unit 104) which

eliminates the isolated points from the image data when a number of the counted

isolated points reaches a threshold value or less (column 3, lines 18-20 and column 4,

lines 53-59).

With regard to claim 2, Ishii discloses wherein the threshold value is set at

different values according to an image resolution (column 7, line 33- column 8 line 2).

With regard to claim 3, Ishii discloses wherein the image data is divided into

several sections, and the isolated points are counted for each of the sections, and when

the counted value reaches the threshold value or less for each of the sections

respectively, the isolated points are eliminated from the image data in the section

(column 3, lines 36-48; column 5, line 46- column 6, line 44).

With regard to claim 4, Ishii discloses wherein the image data is divided into

smaller sections as the resolution of the image data becomes higher (column 7, line 64 -

column 8, line 5).

With regard to claim 12, Ishii discloses further comprising: determining an image

resolution of the image data (column 7, lines 64-67 and column 8, lines 1-2); setting a

threshold value according to the image resolution; and comparing the number of the

counted isolated points and the set threshold value (column 7, line 33 - column 8, line

2).

With regard to claim 13, Ishii discloses an image processing method comprising:

dividing image data into several sections; detecting isolated points in the image data for

each of the divided sections (column 3, lines 36-48; counting a number of the detected

isolated points for each of the divided sections; and eliminating the isolated points from

the image data for a section when the counted number of the isolated points reaches a

threshold value or less for each of the divided sections (column 5, line 46 – column 6,

line 44).

With regard to claim 14, Ishii discloses further comprising: determining an image

resolution of the image data (column 7, line 64-column 8, line 2); determining a number

of sections to divide the image data according to the image resolution; and dividing the

image data into the determined number of sections (column 7, lines 64 - column 8, line

5).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 5-11, 15-20 are rejected under 35 U.S.C. 102(b) as being anticipated by

Lee et al. (Lee) (US Patent 6160913).

With regard to claim 5, Lee discloses an image processing device comprising: an

isolated point detecting unit that detects isolated points from image data (column 2,

lines 27-29); a register to which a threshold value is written (column 9, lines 1-6, lines

34-35, figure 13, Here, line buffers and registers contain image value and threshold

value); a counter which counts the isolated points detected by the isolated point

detecting unit, and outputs a signal when a number of the counted isolated points

reaches the threshold value written in the register or less (column 8, lines 58-67); and

an isolated point eliminating unit which eliminates the isolated points from the image

data when the signal is input from the counter (column 8, lines 58-67).

With regard to claim 6, Lee discloses wherein the threshold value is written into

the register according to an image resolution (column 9, lines 1-6, lines 26-35 and figure

13). Here, all pixels data process through shift registers including the threshold value.

With regard to claim 7, Lee discloses an image processing device comprising: means for detecting isolated points from image data (column 2, lines 27-29); means for counting the isolated points detected by the means for detecting (column 7, lines 49-59); and means for eliminating the isolated points from the image data when a counted number of the isolated points reaches a threshold value or less (column 8, lines 58-67).

With regard to claim 8, Lee discloses further comprising means for setting different threshold value according to an image resolution of the image data (column 7, lines 61-67 and column 8, lines 1-12).

With regard to claim 9, Lee discloses further comprising: means for dividing the image data into several sections (column 8, lines 1-12. Here, a bigger matrix size used to divide image sections smaller for more accuracy and detecting pixels); wherein the isolated points are counted for each of the sections, and when the counted value reaches the threshold value or less in each of the sections, the isolated points are eliminated from the image data in the section (column 2, lines 35-42).

With regard to claim 10, Lee discloses wherein the image data is divided into smaller sections as the image resolution of the image data becomes higher (column 7, lines 49-67 and column 8, lines 1-12). Here, a bigger matrix size used to divide image sections smaller for more accuracy and detecting pixels.

<u>Referring to claim 11:</u>

Claim 11 is the method claim corresponding to operation of device in claim 1 with method steps corresponding directly to the function of device elements in claim 1. Therefore claim 11 is rejected as set forth above for claim 1.

With regard to claim 15, Lee discloses further comprising means for storing the threshold value (column 9, lines 1-5, lines 26-35 and figure 13). Here, all pixel data process through shift register and store in buffer including threshold value.

With regard to claim 16, Lee discloses further comprising a register to store the threshold value (column 9, lines 26-35 and figure 13). Here, all pixel data process through shift register and store in buffer including threshold value.

With regard to claim 17, Lee discloses wherein the image data is divided into several sections (column 8, lines 1-12. Here, a bigger matrix size used to divide image sections smaller for more accuracy and detecting pixels).

With regard to claim 18, Lee discloses wherein the threshold value is stored in the register according to the image resolution (column 9, lines 1-5, lines 26-35 and figure 13). Here, all pixel data process through shift register and store in buffer including threshold value.

With regard to claim 19, Lee discloses further comprising storing the threshold value (column 9, lines 1-5, lines 26-35 and figure 13). Here, all pixel data process through shift register and store in buffer including threshold value.

With regard to claim 20, Lee discloses further comprising storing the threshold value (column 9, lines 1-5, lines 26-33 and figure 13). Here, all pixel data process through shift register and store in buffer including threshold value.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang N. Vo whose telephone number is 5712701121. The examiner can normally be reached on 7:30AM-5:00PM Monday-Friday.
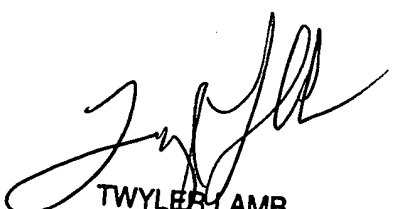
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler M. Lamb can be reached on 5712727406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Quang N. Vo   4/12/07
Patent Examiner

TWYLER LAMB
SUPERVISORY PATENT EXAMINER